

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (currently amended) A method for verifying data written onto a first
2 memory device by a data storage system, the method comprising:
3 at a first time, generating a first sequence of numbers based on a first seed value
4 using a pseudo random number generator, the first seed value including a first time sensitive
5 code based on the first time;
6 writing the first sequence of numbers on the first memory device at a first location
7 and a second memory device using the data storage system;
8 reading first sets of data stored on the first memory device at the first location and
9 the second memory device; and
10 comparing the first set of data read from the first memory device to the first set of
11 data read from the second memory device to evaluate integrity of the first set of data written onto
12 the first memory device;
13 at a second time, generating a second sequence of numbers based on a second
14 seed value using the pseudo random generator, the second seed value including a second time
15 sensitive code based on the second time;
16 writing the second sequence of numbers on the first memory device at the first
17 location and a second memory device using the data storage system;
18 reading second sets of data stored on the first memory device at the first location
19 and the second memory device; and
20 comparing the second set of data read from the first memory device to the second
21 set of data read from the second memory device to evaluate integrity of the first set of data
22 written onto the first memory device.

1 2. (currently amended) The method according to claim 1 wherein writing
2 the first and second sequences ~~sequence~~ of numbers on the first memory device at the first
3 location further comprises:
4 writing the first and second sequences ~~sequence~~ of numbers onto the first memory
5 device at a logical block address.

1 3. (currently amended) The method according to claim 2 wherein writing
2 the first and second sequences ~~sequence~~ of numbers on the second memory device further
3 comprises:
4 storing the first and second sequences ~~sequence~~ of numbers on the second
5 memory device at the logical block address.

1 4. (currently amended) The method according to claim 3 wherein reading
2 the data stored on the first memory device at the first location using the data storage system
3 further comprises:
4 reading the data stored at the logical block address.

1 5. (currently amended) The method according to claim 2 wherein the first
2 seed value includes the logic block address.

1 6. (currently amended) The method according to claim 1 wherein the first
2 time sensitive code includes a date and a time that the sequence of numbers was generated.

1 7. (original) The method according to claim 1 wherein the first memory
2 device is a magnetic hard disk and the data storage system is a hard disk drive.

1 8. (original) The method according to claim 1 wherein the first memory
2 device is an optical disk and the data storage system is an optical disk drive.

1 9. (currently amended) The method according to claim 1 wherein the first
2 time sensitive code is stored in a database and is linked to a date and a time.

1 10. (currently amended) A data storage system comprising:
2 a pseudo random number generator that generates a sequence of numbers based
3 on a seed value that includes an event sensitive code; and
4 a controller for the data storage system that writes the sequence of numbers on a
5 memory device under test,
6 wherein the controller reads the sequence of numbers stored on the memory
7 device under test, and compares the sequence of numbers to expected data to determine if the
8 data storage system is functioning properly, the expected data being generated from data stored
9 on a second memory device.
10 logic adapted to:
11 direct the generator to generate a plurality of sequences of numbers, each
12 sequence based on a different seed that includes an event sensitive code; and
13 direct the controller to write, at different times, each sequence to the same
14 location on the memory device under test, and to compare each sequence to data stored on a
15 second memory device.

1 11. (currently amended) The data storage system according to claim 10
2 wherein the controller writes ~~the~~ one sequence of numbers on the second memory device, the
3 controller reads the one sequence of numbers stored on the second memory device, and the
4 expected data is the one sequence of numbers read from the second memory device.

1 12. (currently amended) The data storage system according to claim 10
2 wherein the controller writes ~~the~~ one seed value on the second memory device, the pseudo
3 random number generator regenerates ~~the~~ one sequence of numbers based on the one seed value
4 stored on the second memory device, and the regenerated sequence of numbers is the expected
5 data.

1 13. (original) The data storage system according to claim 10 wherein the
2 memory device under test is a magnetic hard disk drive and the controller is a hard disk drive
3 controller.

1 14. (original) The data storage system according to claim 10 wherein the
2 event sensitive code includes a date and a time.

1 15. (currently amended) The data storage system according to claim 14
2 wherein ~~the~~ one seed value includes a logic block address corresponding to a the location where
3 the controller writes ~~the~~ one sequence of numbers on the memory device under test.

1 16. (currently amended) The data storage system according to claim 10
2 wherein the controller writes ~~the~~ one sequence of numbers on the memory device under test at a
3 logical block address and on the reference drive at the corresponding logical block address.

1 17. (currently amended) The data storage system according to claim 16
2 wherein the controller reads ~~the~~ one sequence of numbers stored on the memory device under
3 test at the logical block address.

1 18. (original) The method according to claim 10 wherein the memory
2 device under test is an optical disk and the data storage system is an optical disk drive.

1 19. (currently amended) The method according to claim 10 wherein the ~~time~~
2 event sensitive code is stored in a database and is linked to a date and a time.

1 20. (currently amended) A method for verifying data written onto a memory
2 device under test by a data storage system, the method comprising:
3 at a first date and time, generating a first sequence of numbers based on a first
4 seed value using a pseudo random number generator, the first seed value including a the first
5 date and a time;

6 writing the first sequence of numbers on the memory device under test at a first
7 location using the data storage system;
8 storing the first seed value in a second memory device;
9 regenerating the first sequence of numbers based on the first seed value stored in
10 the second memory device using the pseudo random number generator;
11 reading the first sequence of numbers stored on the memory device under test at
12 the first location; and
13 comparing the regenerated first sequence of numbers to the first sequence of
14 numbers read from the memory device under test at the first location to determine an integrity of
15 data written onto the memory device under test.
16 at a second date and time, generating a second sequence of numbers based on a
17 second seed value using the pseudo random number generator, the second seed value including
18 the second date and a time;
19 writing the second sequence of numbers on the memory device under test at the
20 first location using the data storage system;
21 storing the second seed value in the second memory device;
22 regenerating the second sequence of numbers based on the second seed value
23 stored in the second memory device using the pseudo random number generator;
24 reading the second sequence of numbers stored on the memory device under test
25 at the first location; and
26 comparing the regenerated second sequence of numbers to the second sequence of
27 numbers read from the memory device under test at the first location to determine an integrity of
28 data written onto the memory device under test.

1 21. (new) The method according to claim 1, further comprising:
2 comparing data written to a plurality of additional locations on the first memory
3 device to corresponding data written on the second memory device; and
4 if the number of locations having error is below a threshold, then determining that
5 the data has been written correctly.